

REMARKS

Claims 1-23 were pending in the present application and will remain after this amendment. Applicants have amended Claims 1-23 and added new Claims 24-26, as shown above. All amendments are supported by the original specification and do not add new matter. For example, new Claims 24-25 are supported by page 11, paragraph 1051. New Claim 26 is supported by page 13, paragraph 1055.

Applicants have amended the specification to improve grammar and remove inconsistent terms and numbers. These amendments are fully supported by the original disclosure and do not add new matter.

The Office Action rejected Claims 1-23 under 35 U.S.C. § 103(a) over Das (U.S. 2002/0167992A1) in view of Hsu (U.S. 6,665,309 B2). According to the *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) and MPEP 2142, three basic criteria must be met to establish a prima facie case of obviousness. First, there must be some suggestion or motivation of, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference(s) must teach or suggest all the claim limitations.

Both Das (paragraphs 0006-0009) and Hsu (col. 3) describe the CDMA "1xEV-DV" standard. Hsu (col. 3) also describes the "1XTREME scheme." Applicants' specification (page 6, paragraphs 1015-1017) recognizes certain disadvantages and inefficiencies of the 1xEV-DV and 1XTREME proposals.

The Office Action (page 3) acknowledged that Das does not disclose "generating a first control channel comprising an indicator that a traffic channel is to be shared." In addition, Das does not teach or suggest a "sub-packet of a traffic channel ... shared by a plurality of subscriber stations," as recited in Applicants' Claim 1. Also, Das does not teach a "sub-packet" comprising "sub-slots," as recited in Claim 1. Thus, Das does not teach or suggest "generating a first control channel comprising (a) an indicator that a sub-packet of a traffic channel is to be shared by a plurality of subscriber stations, the sub-packet comprising at least one slot, the slot comprising at

least two sub-slots, and (b) parameters of the shared sub-packet of the traffic channel," as recited in Applicants' Claim 1.

The Office Action (page 4) cited several lines in Hsu as disclosing "generating a first control channel comprising an indicator that a traffic channel is to be shared." The lines in Hsu cited by the Office Action, however, only describe multiple users sharing a forward packet-data channel (e.g., col. 3, lines 8-15). Hsu does not teach or suggest a "first control channel comprising an indicator that a traffic channel is to be shared," as recited in Applicants' original Claim 1.

In addition, Hsu does not mention the "sub-packets" of Applicants' Claim 1. Hsu does not teach or suggest "a sub-packet of a traffic channel ... shared by a plurality of subscriber stations," as recited in Applicants' Claim 1. Also, Hsu does not teach a "sub-packet" comprising "sub-slots," as in Claim 1. Thus, Hsu does not teach or suggest "generating a first control channel comprising (a) an indicator that a sub-packet of a traffic channel is to be shared by a plurality of subscriber stations, the sub-packet comprising at least one slot, the slot comprising at least two sub-slots, and (b) parameters of the shared sub-packet of the traffic channel," as recited in Applicants' Claim 1.

Moreover, Das and Hsu do not teach or suggest "generating at least one second control channel, each of said at least one second control channel comprising (a) an identity of at least one subscriber station intended to share the sub-packet," as recited in Claim 1.

For these reasons, Applicants respectfully submit that the combination of Das and Hsu does not teach or suggest Applicants' Claim 1 and its associated dependent claims, Claims 2-7.

Claim 8 was also rejected over Das in view of Hsu. As stated above, Das and Hsu do not teach or suggest a "sub-packet of a traffic channel ... shared by a plurality of subscriber stations." Thus, Das and Hsu do not teach "at the first subscriber station, demodulating a first control channel to determine whether a sub-packet of a traffic channel is to be shared by a plurality of subscriber stations," and "if the sub-packet of the traffic channel is to be shared, determining a number of subscriber stations sharing the sub-packet of the traffic channel and multiplexing of the traffic channel in accordance with said demodulated first control channel," as recited in Applicants' Claim 8. In addition, Das and Hsu do not teach "demodulating a second control channel comprising (a) an identity of a subscriber station intended to share the sub-packet and (b)

information enabling the subscriber station intended to share the sub-packet to demodulate the traffic channel,” as recited in Applicants’ Claim 8.

For these reasons, Applicants respectfully submit that the combination of Das and Hsu does not teach or suggest Applicants’ Claim 8 and its associated dependent claims, Claims 9-12.

Claim 13 was also rejected over Das in view of Hsu. Claim 13 includes several limitations that are similar to limitations in Claims 1 and 8. For the reasons stated above, Applicants respectfully submit that the combination of Das and Hsu does not teach or suggest Applicants’ Claim 13 and its associated dependent claims, Claims 14-23.

For dependent Claims 2, 3, 14 and 15, Das and Hsu do not teach or suggest a “sub-packet ... shared by a plurality of subscriber stations,” as stated above.

For Claims 4 and 16, Das and Hsu do not teach or suggest “transmitting the first control channel at a power required by a subscriber station with a worst forward link quality metric among a plurality of subscriber stations for which the first control channel is intended.”

For Claims 5 and 17, Das and Hsu do not teach or suggest “transmitting each of the at least one second control channel at a minimum power required by a subscriber station for which the at least one second control channel is intended.” The Office Action cited Das, paragraph 0008, but paragraph 0008 does not mention “a minimum power required by a subscriber station,” as in Claims 5 and 17.

For Claims 6, 7, 18 and 19, Das and Hsu do not teach or suggest “sub-divisions” of a “sub-packet.”

For Claims 9 and 20, Das and Hsu do not teach or suggest a “third control channel.” Thus Das and Hsu do not teach “if the subscriber station identity of the second control channel does not match the identity of the first subscriber station and a third control channel is transmitted, demodulating the third control channel,” as recited in Claims 9 and 20.

For Claims 10 and 21, Das and Hsu do not teach or suggest “demodulating a first control channel to determine whether the sub-packet of the traffic channel is to be shared.”

For Claims 12 and 23, Das and Hsu do not teach or suggest “determining a number of sub-divisions of the sub-packet and a starting sub-division in accordance with the enabling information if the sub-packet is time multiplexed.”

Double Patenting

The Office Action rejected Claims 1-5 under 35 USC 101 as claiming the same invention as Claims 1-5 of co-assigned Application serial no. 09/978,425. Claim 1 of the 09/978,425 patent application does not recite "a first control channel comprising (a) an indicator that a sub-packet of a traffic channel is to be shared by a plurality of subscriber stations, the sub-packet comprising at least one slot, the slot comprising at least two sub-slots, and (b) parameters of the shared sub-packet of the traffic channel," as recited in Claim 1 of this application. In addition, Claim 1 of 09/978,425 patent application recites a "first control channel comprising ... a number of second control channels," which is not recited in Claim 1 of this application. Thus, there is no double patenting.

Claim 8 of the present application was rejected under the judicial doctrine of obviousness-type double patenting over Claim 6 of the 09/978,425 patent application in view of Hsu. Claim 6 of the 09/978,425 patent application does not recite "demodulating a first control channel to determine whether a sub-packet of a traffic channel is to be shared by a plurality of subscriber stations," as recited in Claim 8 of the present application. As stated above, Hsu does not teach or suggest "a sub-packet of a traffic channel ... shared by a plurality of subscriber stations," as recited in Claim 8 of the present application. Thus, there is no double patenting.

Claim 13 of the present application was rejected under the judicial doctrine of obviousness-type double patenting over Claim 12 of the 09/978,425 patent application in view of Hsu. Claim 12 of the 09/978,425 patent application does not recite "a first control channel comprising (a) an indicator that a sub-packet of a traffic channel is to be shared by a plurality of subscriber stations, and (b) parameters of the shared sub-packet of the traffic channel," as recited in Claim 13 of this application. In addition, Claim 12 of 09/978,425 patent application recites a "first control channel comprising ... a number of second control channels," which is not recited in Claim 13 of this application. Furthermore, as stated above, Hsu does not teach or suggest "a sub-packet of a traffic channel ... shared by a plurality of subscriber stations," as recited in Claim 13 of the present application. Thus, there is no double patenting.

REQUEST FOR ALLOWANCE

In view of the remarks above, Applicants submit that all pending claims are in condition for allowance and respectfully request reconsideration and allowance of this application. Should any issues remain unresolved, the Examiner is encouraged to call the undersigned at the number provided below.

Respectfully submitted,

Dated: 4/7/2004

By:  ACC

Alex C. Chen, Reg. No. 45,591
(858) 651-5363

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121
Telephone: (858) 651-4125
Facsimile: (858) 658-2502



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ENCLOSED ARE:

AMENDMENT TRANSMITTAL LETTER IN DUPLICATE;
AMENDMENT (23 pages); and POSTCARD.

APPLICANT: ODENWALDER et al.

ASSIGNEE: QUALCOMM Incorporated

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FOR: METHOD AND APPARATUS FOR PROCESSING SHARED SUBPACKETS IN A
COMMUNICATION SYSTEM

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